

WHAT IS CLAIMED IS:

- [0028] 1. A method for transmitting call processing-related traffic in a voice over packet network having at least one set of physical links for bearer traffic, comprising:
- [0029] creating a plurality of logical tunnels in said physical links for said call processing-related traffic and said bearer traffic;
- [0030] establishing priorities for said call processing-related traffic and said bearer traffic; and
- [0031] transmitting said call processing-related traffic and said bearer traffic through said logical tunnels in said physical links.
- [0032] 2. The method defined in claim 1, wherein said call processing-related traffic includes call control and OAM&P.
- [0033] 3. The method defined in claim 1, wherein said voice over packet network comprises an ATM network.
- [0034] 4. The method defined in claim 3, further comprising separating said logical tunnels by using different switched virtual circuits with different service profiles.
- [0035] 5. The method defined in claim 4, wherein said call processing-related traffic includes call control and OAM&P.
- [0036] 6. The method defined in claim 3, further comprising separating said logical tunnels by using different permanent virtual circuits with different service profiles.
- [0037] 7. The method defined in claim 6, wherein said call processing-related traffic includes call control and OAM&P.

[0038] 8. The method defined in claim 1, wherein said voice over packet network comprises an IP network.

[0039] 9. The method defined in claim 8, further comprising separating said logical tunnels by using different virtual private networks with different multiprotocol label switching tags.

[0040] 10. The method defined in claim 9, wherein said call processing-related traffic includes call control and OAM&P.

[0041] 11. A system for transmitting call processing-related traffic in a voice over packet network having at least one set of physical links for bearer traffic, comprising:

[0042] means for creating a plurality of logical tunnels in said physical links;

[0043] means for establishing priorities for said call processing-related traffic and said bearer traffic; and

[0044] means for transmitting said call processing-related traffic and said bearer traffic through said logical tunnels in said physical links.

[0045] 12. The system defined in claim 11, wherein said call processing-related traffic includes call control and OAM&P.

[0046] 13. The system defined in claim 11, wherein said voice over packet network comprises an ATM network.

[0047] 14. The system defined in claim 13, further comprising means for separating said logical tunnels by using different switched virtual circuits with different service profiles.

[0048] 15. The system defined in claim 14, wherein said call processing-related traffic includes call control and OAM&P.

[0049] 16. The system defined in claim 13, further comprising separating said logical tunnels by using different permanent virtual circuits with different service profiles.

[0050] 17. The system defined in claim 16, wherein said call processing-related traffic includes call control and OAM&P.

[0051] 18. The system defined in claim 11, wherein said voice over packet network comprises an IP network.

[0052] 19. The system defined in claim 18, further comprising separating said logical tunnels by using different virtual private networks with different multiprotocol label switching tags.

[0053] 20. The system defined in claim 19, wherein said call processing-related traffic includes call control and OAM&P.